

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

1. (Currently Amended) For use in a fixed wireless access network comprising a plurality of base stations capable of bidirectional time division duplex (TDD) communication with wireless access devices disposed at a plurality of subscriber premises, a TDD frame transmission synchronization apparatus comprising:

a frame allocation controller capable of

receiving, from a first radio frequency (RF) modem shelf associated with a first base station, access requests generated by a first group of wireless access devices communicating with said first base station, and

determining, from traffic requirements associated with said access requests, a time ~~duration of a longest~~ downlink portion of TDD frames used by ~~any one~~ or more of a plurality of RF modems in said RF modem shelf to communicate with ~~a first wireless access device~~ within one of said first group of wireless access devices that is longest relative to a downlink portion of TDD frames used by any other of said RF modems to communicate with one of said first group of wireless access devices, and a time duration of said longest downlink portion of TDD frames,

wherein said frame allocation controller further determines a frame allocation of the downlink portion and the uplink portion of TDD frames used by said plurality of RF modems to communicate with said first group of wireless access devices.

2. (Original) The TDD frame transmission synchronization apparatus as set forth in Claim 1 wherein said frame allocation is capable of preventing a second wireless access device from transmitting an uplink portion of a TDD frame received by a second RF modem during transmission by said first RF modem of a downlink portion of a TDD frame.

3. (Original) The TDD frame transmission synchronization apparatus as set forth in Claim 2 further comprising a clock signal distribution circuit capable of synchronizing the starting points of the downlink portions of TDD frames transmitted by said plurality of RF modems in said RF modem shelf.

4. (Original) The TDD frame transmission synchronization apparatus as set forth in Claim 3 wherein said frame allocation is determined from said time duration of said longest downlink portion.

5. (Currently Amended) For use in a fixed wireless access network comprising a plurality of base stations capable of bidirectional time division duplex (TDD) communication with wireless access devices disposed at a plurality of subscriber premises, a ~~The~~ TDD frame transmission synchronization apparatus ~~as set forth in Claim 4~~ comprising:

a frame allocation controller capable of

receiving, from a first radio frequency (RF) modem shelf associated with a first base station, access requests generated by a first group of wireless access devices communicating with said first base station, and

determining, from traffic requirements associated with said access requests, a time duration of a longest downlink portion of TDD frames used by any one of a plurality of RF modems in said RF modem shelf to communicate with a first wireless access device within said first group of wireless access devices,

wherein said frame allocation controller further determines a frame allocation of the downlink portion and the uplink portion of TDD frames used by said plurality of RF modems to communicate with said first group of wireless access devices,

wherein said frame allocation is further determined from a time duration of a guard band between said uplink portions and said downlink portions.

6. (Original) The TDD frame transmission synchronization apparatus as set forth in Claim 5 wherein said frame allocation controller is further capable of receiving from a second radio frequency (RF) modem shelf associated with a second base station access requests generated by a second group of wireless access devices communicating with said second base station.

7. (Original) The TDD frame transmission synchronization apparatus as set forth in Claim 6 wherein said frame allocation controller determines from traffic requirements associated with said access requests generated by said first and second groups of wireless access devices a time duration of a longest downlink portion of TDD frames used by a third RF modem associated with one of said first and second RF modem shelves to communicate with a third wireless access device.

8. (Original) The TDD frame transmission synchronization apparatus as set forth in Claim 7 wherein said frame allocation controller further determines a frame allocation of the downlink portion and the uplink portion of TDD frames used by said plurality of RF modems in said first RF modem shelf and a plurality of RF modems in said second RF modem shelf to communicate with said first and second groups of wireless access devices.

9. (Original) The TDD frame transmission synchronization apparatus as set forth in Claim 8 wherein TDD frame transmission synchronization apparatus is disposed in said first RF modem shelf.

10. (Original) The TDD frame transmission synchronization apparatus as set forth in Claim 8 wherein TDD frame transmission synchronization apparatus is disposed in a central office facility of a telephone network.

11. (Currently Amended) A fixed wireless access network comprising:
- a plurality of base stations capable of bidirectional communication time division duplex (TDD) communication with wireless access devices disposed at a plurality of subscriber premises;
- and
- a TDD frame transmission synchronization apparatus comprising:
- a frame allocation controller capable of
- receiving, from a first radio frequency (RF) modem shelf associated with a first base station, access requests generated by a first group of wireless access devices communicating with said first base station and
- determining, from traffic requirements associated with said access requests, a ~~time duration of a longest~~ downlink portion of TDD frames used by ~~any one or more~~ of a plurality of RF modems in said RF modem shelf to communicate with ~~a first wireless access device within one of~~ said first group of wireless access devices that is longest relative to a downlink portion of TDD frames used by any other of said RF modems to communicate with one of said first group of wireless access devices, and a time duration of said longest downlink portion of TDD frames,
- wherein said frame allocation controller further determines a frame allocation of the downlink portion and the uplink portion of TDD frames used by said plurality of RF modems to communicate with said first group of wireless access devices.

12. (Original) The fixed wireless access network as set forth in Claim 11 wherein said frame allocation is capable of preventing a second wireless access device from transmitting an uplink portion of a TDD frame received by a second RF modem during transmission by said first RF modem of a downlink portion of a TDD frame.

13. (Original) The fixed wireless access network as set forth in Claim 12 further comprising a clock signal distribution circuit capable of synchronizing the starting points of the downlink portions of TDD frames transmitted by said plurality of RF modems in said RF modem shelf.

14. (Original) The fixed wireless access network as set forth in Claim 13 wherein said frame allocation is determined from said time duration of said longest downlink portion.

15. (Currently Amended) ~~The~~ A fixed wireless access network ~~as set forth in Claim 14~~
comprising:

a plurality of base stations capable of bidirectional communication time division duplex
(TDD) communication with wireless access devices disposed at a plurality of subscriber premises;
and

a TDD frame transmission synchronization apparatus comprising:

a frame allocation controller capable of

receiving, from a first radio frequency (RF) modem shelf associated with a first base
station, access requests generated by a first group of wireless access devices communicating
with said first base station and

determining, from traffic requirements associated with said access requests, a time
duration of a longest downlink portion of TDD frames used by any one of a plurality of RF
modems in said RF modem shelf to communicate with a first wireless access device within
said group of wireless access devices,

wherein said frame allocation controller further determines a frame allocation of the
downlink portion and the uplink portion of TDD frames used by said plurality of RF modems
to communicate with said first group of wireless access devices,

wherein said frame allocation is further determined from a time duration of a guard band
between said uplink portions and said downlink portions.

16. (Original) The fixed wireless access network as set forth in Claim 15 wherein said frame allocation controller is further capable of receiving from a second radio frequency (RF) modem shelf associated with a second base station access requests generated by a second group of wireless access devices communicating with said second base station.

17. (Original) The fixed wireless access network as set forth in Claim 16 wherein said frame allocation controller determines from traffic requirements associated with said access requests generated by said first and second groups of wireless access devices a time duration of a longest downlink portion of TDD frames used by a third RF modem associated with one of said first and second RF modem shelves to communicate with a third wireless access device.

18. (Original) The fixed wireless access network as set forth in Claim 17 wherein said frame allocation controller further determines a frame allocation of the downlink portion and the uplink portion of TDD frames used by said plurality of RF modems in said first RF modem shelf and a plurality of RF modems in said second RF modem shelf to communicate with said first and second groups of wireless access devices.

19. (Original) The fixed wireless access network as set forth in Claim 18 wherein TDD frame transmission synchronization apparatus is disposed in said first RF modem shelf.

20. (Original) The fixed wireless access network as set forth in Claim 18 wherein TDD frame transmission synchronization apparatus is disposed in a central office facility of a telephone network.